MAY 19 '88

I 49.89/2:85(15) map A8

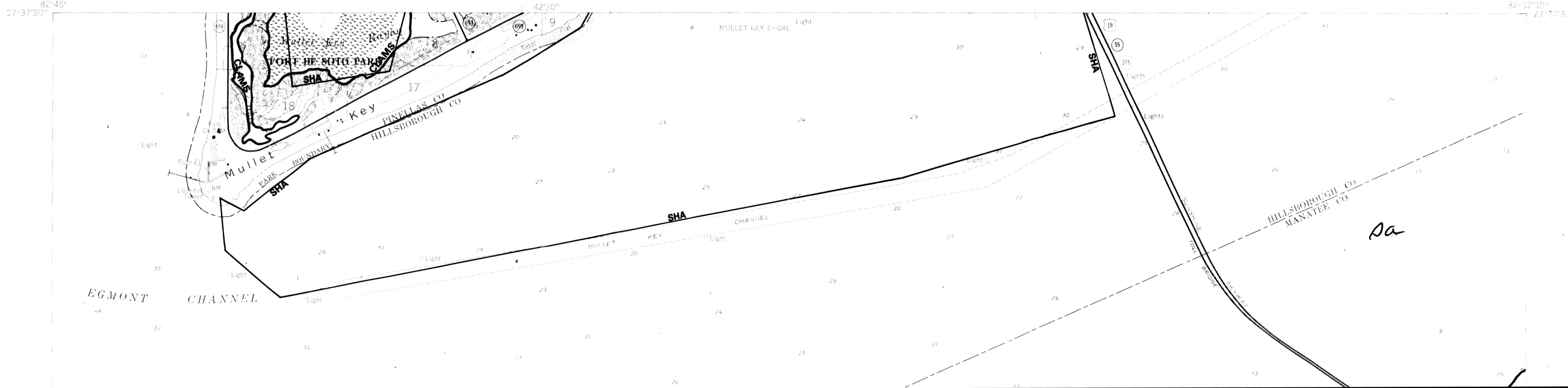
MAY 19 '88

I 49.89/2:85(15) map A8

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

STATE OF FLORIDA

ANNA MARIA QUADRANGLE
FLORIDA
7.5 MINUTE SERIES (TOPOGRAPHIC)

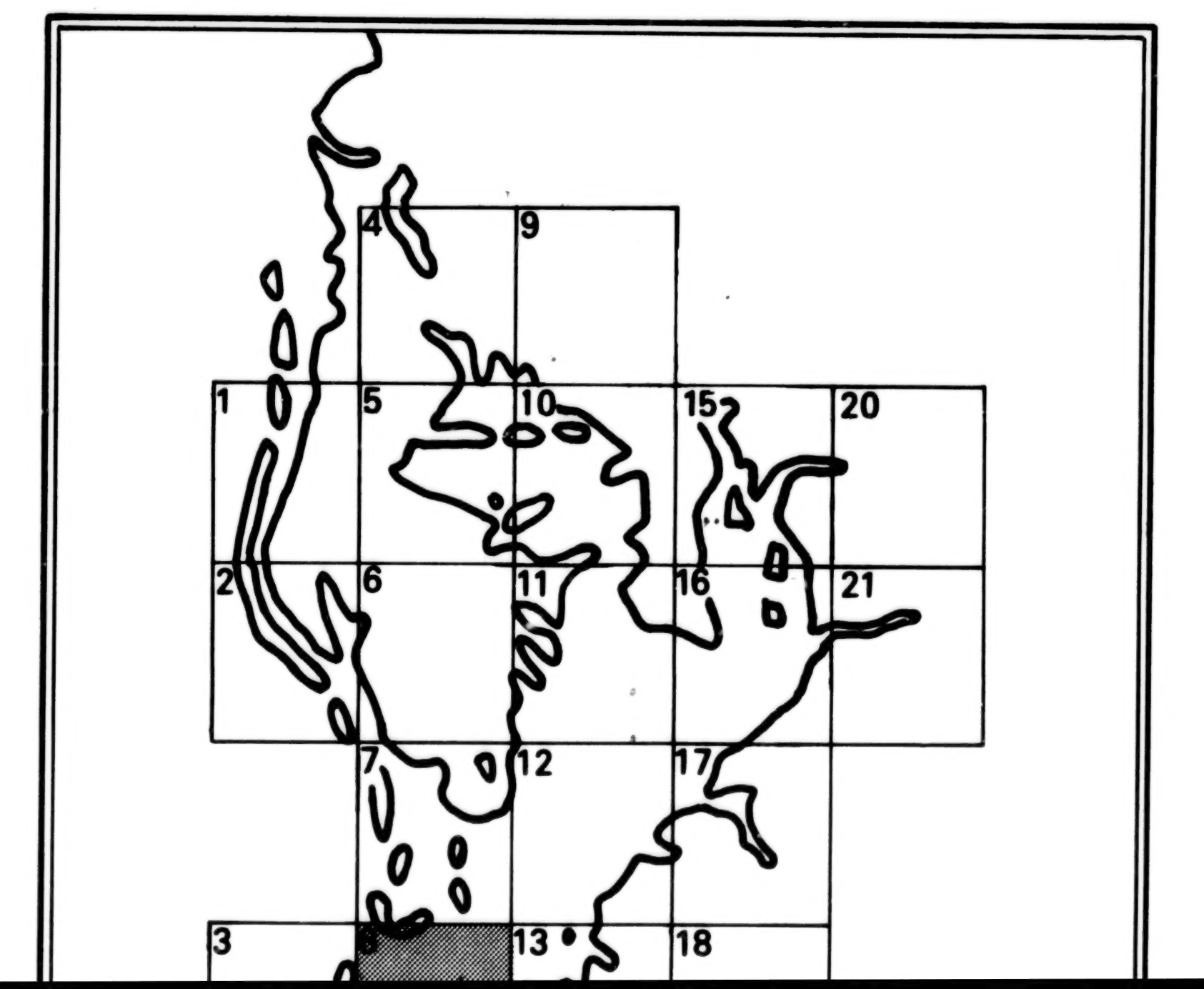

82°45'
27°37'30"
42'30"
82°37'30"
27°37'30"
FORT DE SOTO PARK
CLAMS
SHA
Mullet Key
PARK BOUNDARY
PINELLAS CO
HILLSBOROUGH CO
MULLET KEY SHOAL
MULLET KEY CHANNEL
EGMONT CHANNEL
Light
Lights
19
55
275
SUNSHINE SKYWAY TOLL BRIDGE
HILLSBOROUGH CO
MANATEE CO
Sa

MAP A8

TAMPA BAY ENVIRONMENTAL ATLAS

BIOLOGICAL RESOURCES

ANNA MARIA


1
2
3
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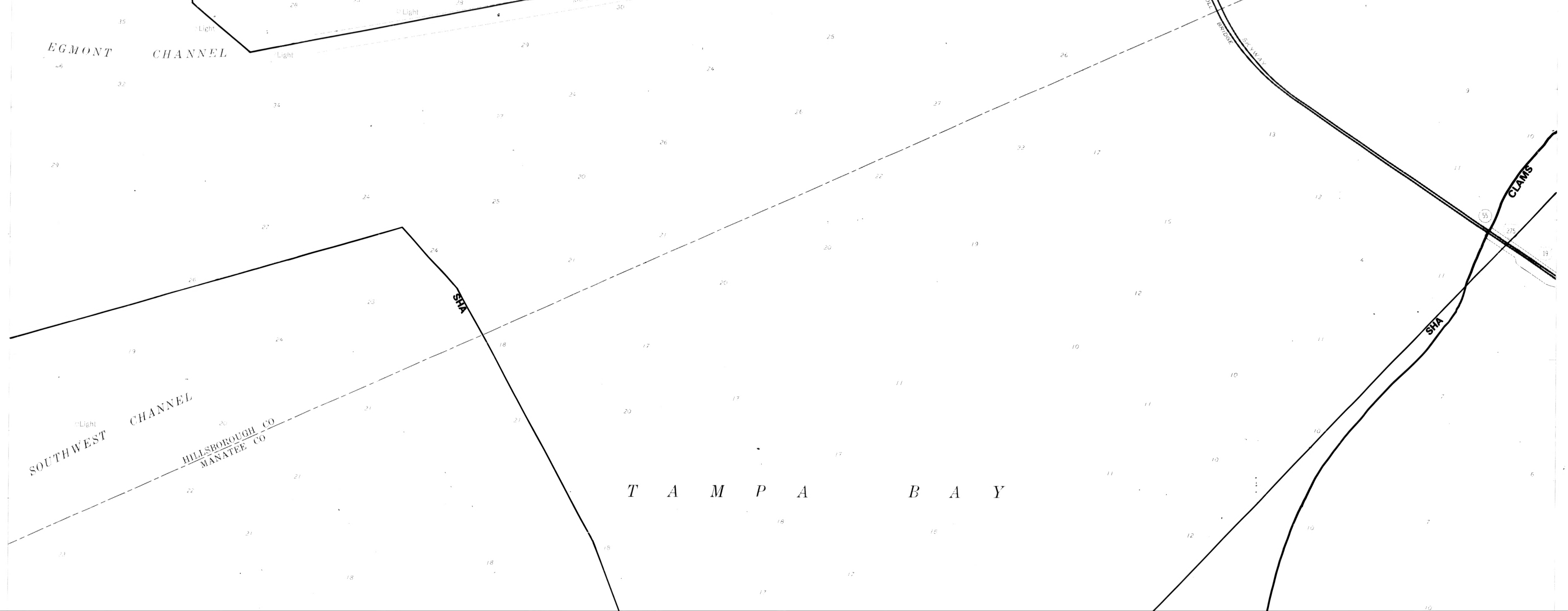
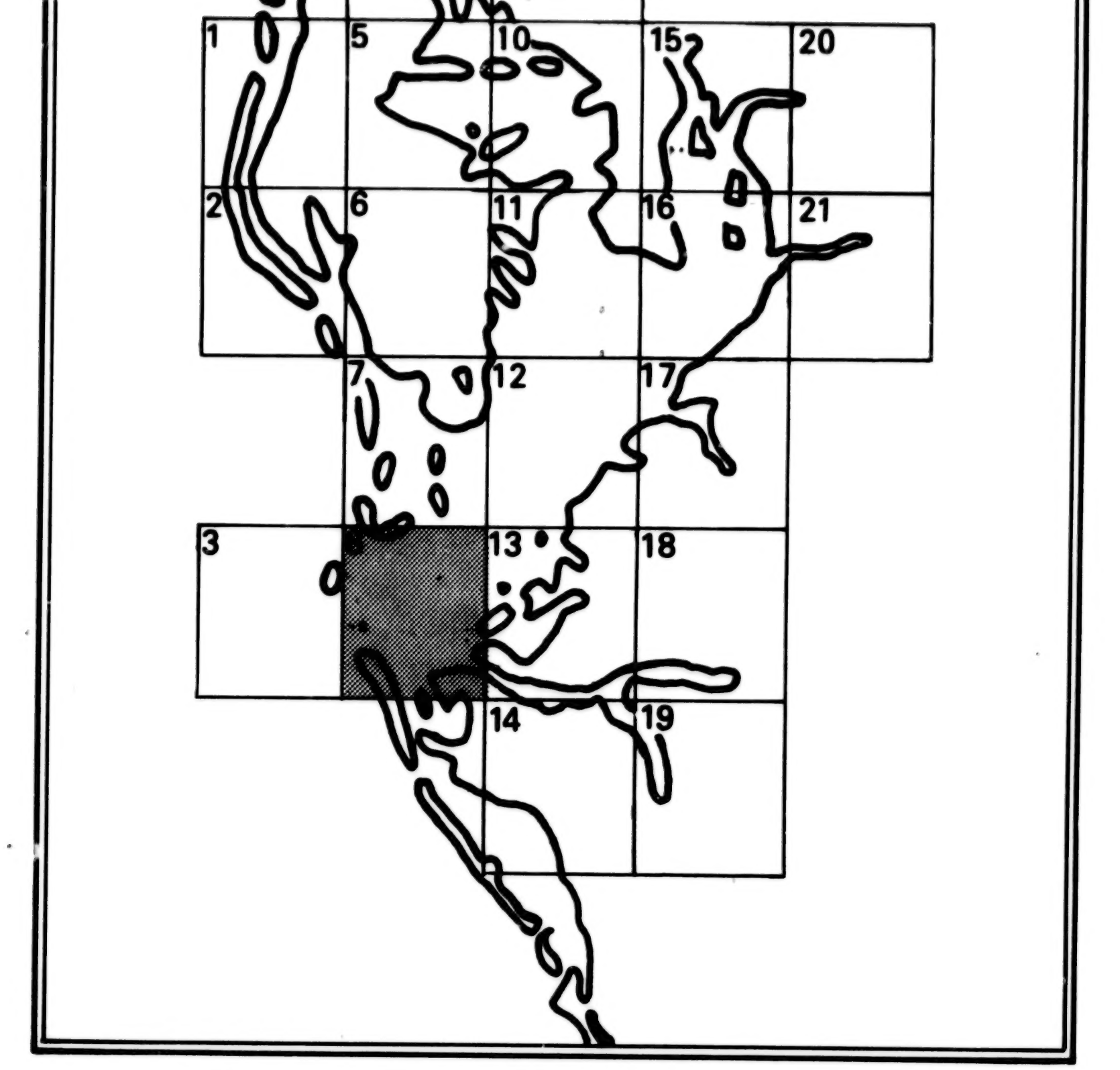
17
18
20
21


EGMONT CHANNEL
SOUTHWEST CHANNEL
HILLSBOROUGH CO.
MANATEE CO.
SHA
TAMPA BAY
CLAMS
SHA



Scale 1:24,000

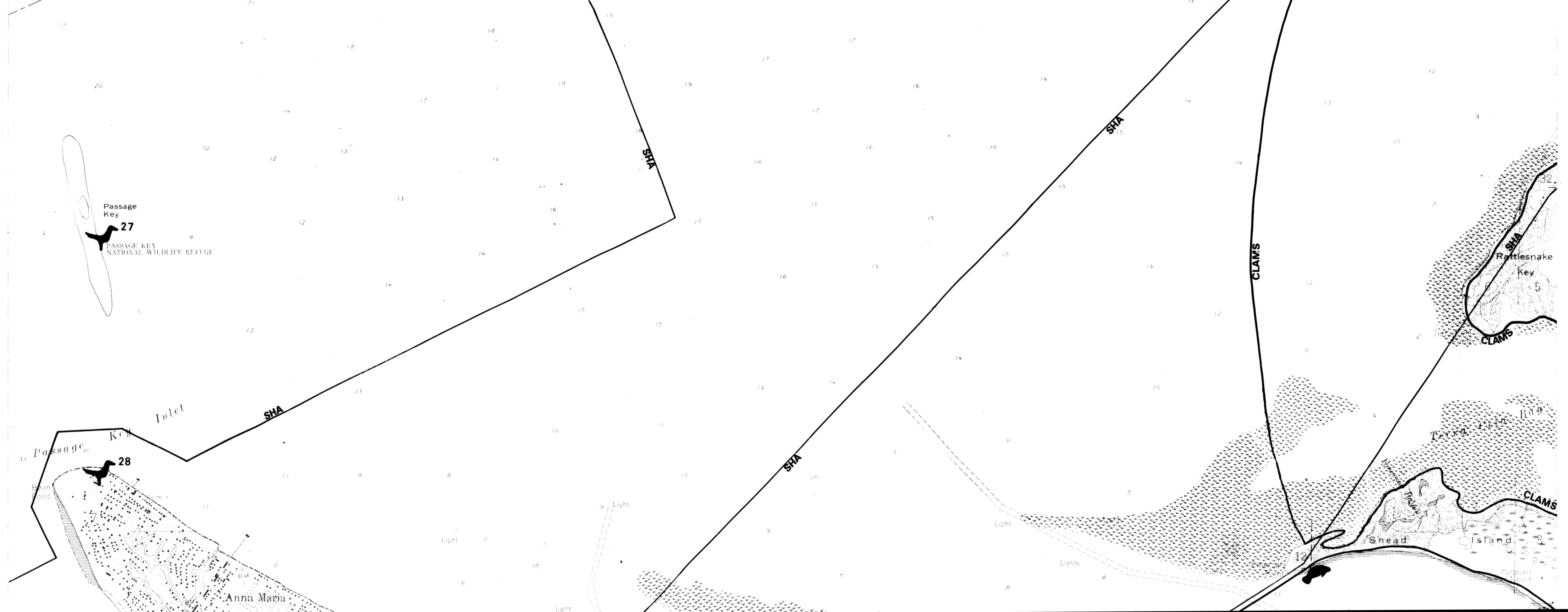
1984

TOPICAL MAPS IN THIS ATLAS:
A. BIOLOGICAL RESOURCES
B. WATER RESOURCES

Produced by U.S. Fish and Wildlife Service
Projection and 1,000 meter grid, zone 17: Universal
Transverse Mercator
10,000-foot grid ticks based on Florida coordinate
system, east and west zones

Overlay material compiled in 1984 from
latest available data obtained from
Federal, State and Local government
agencies and other sources.

There are no maps A19, A20, A21 due to a lack of data.


Passage Key
27
PASSAGE KEY NATIONAL WILDLIFE REFUGE
SHA
Passage Key Inlet
28
Bean Point
Anna Maria
SHA
SHA
CLAMS
SHA
Rattlesnake Key
CLAMS
Terra Ceia Bay
CLAMS
Snead Island
Portavant Indian Mound

Overlay material compiled in 1984 from
latest available data obtained from
Federal, State and Local government
agencies and other sources.

There are no maps A19, A20, A21 due to a lack of data.

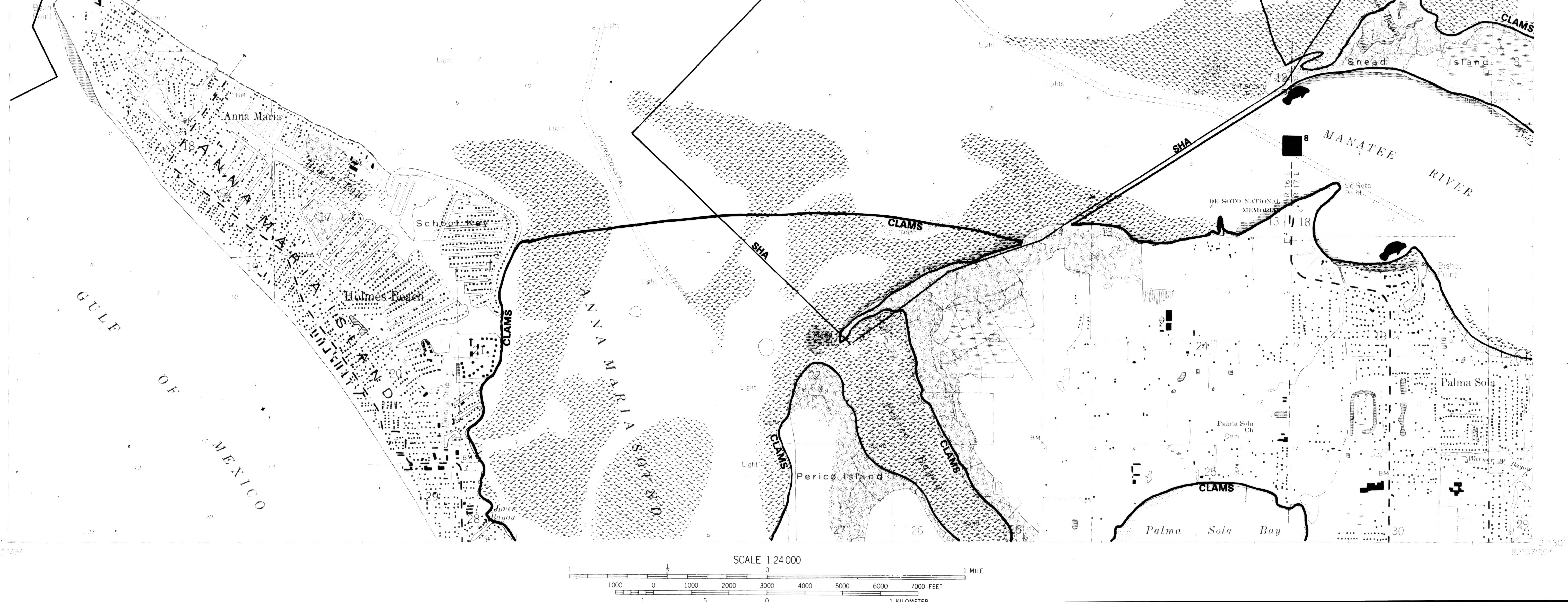
LEGEND

SHELLFISH HARVEST AREA
(Florida Dept. of Natural Resources)

SHA	Shellfish Harvest Approved
SHCA	Shellfish Harvest Conditionally Approved
	NOTE: Due to Dept. of Natural Resources (DNR) water quality standards all other estuarine areas are prohibited or unclassified as to shellfish harvest status and are officially unapproved. For further info. on status of harvest areas contact DNR - Shellfish Environmental Assessment Section.
(Oys-1)	Public Oyster Bed
Oys-2	Private Oyster Bed (Lease)
CLAMS	Clam Bed

FINFISH SPAWNING, NURSERY AND HARVEST AREAS
(Recreational Hook and Line Fishing)

SPECIES #	FINFISH CATEGORY Common Name	SPAWNING LOCATION[1]	SPAWNING SEASON J M M J S N	NURSERY AREA[1]	MAJOR NURSERY HABITATS Seagrass	Mangrove	Saltmarsh	Beach	Coral Reef	Artificial Reef	Open Water	AREA OF ADULT ABUNDANCE[1]	MAJOR ADULT HABITATS Seagrass	Mangrove	Beach	Coral Reef	Artificial Reef	Open Water	MIGRATION TYPE[2]
	ESTUARINE DEPENDENT FISHES																		
1	Red Drum	C	■□□□□□□□■■■■	E	●	●	●					E	●	●	●				2
2	Spotted Seatrout	E	□■■■■■■■■■□□	E	●	●	●					E	●	●					2
3	Snook	C	□□□□■■■□□□□□	E	●	●	●					E	●	●					2
4	Sheepshead	C	□■■■□□□□□□□□	C	●							C-E			●		●		1


CLAMS
SHA
Anna Maria
ANNA MARIA ISLAND
Holmes Beach
GULF OF MEXICO
ANNA MARIA SOUND
Perico Island
Palma Sola Bay
Palma Sola
Snead Island
Emerson Point
MANATEE RIVER
8
DE SOTO NATIONAL MEMORIAL
De Soto Point
Bishop Point
R 16 E
R 17 E
Light
Lights
Bayou
SCALE 1:24 000
1
1/2
0
1 MILE
1000
0
1000
2000
3000
4000
5000
6000
7000 FEET
1
5
0
1 KILOMETER
27°30'

SPECIES #	FINFISH	SPAWNING													NURSERY AREA[1]	MAJOR NURSERY HABITATS							AREA OF ADULT ABUNDANCE[1]	MAJOR ADULT HABITATS						MIGRATION TYPE[2]
	CATEGORY Common Name	LOCATION[1]	SEASON J		M		M		J		S		N			Seagrass	Mangrove	Saltmarsh	Beach	Coral Reef	Artificial Reef	Open Water		Seagrass	Mangrove	Beach	Coral Reef	Artificial Reef	Open Water	
	ESTUARINE DEPENDENT FISHES																													
1	Red Drum	C	■	■							■	■	■	■	E	●	●	●					E	●	●	●				2
2	Spotted Seatrout	E			■	■	■	■	■	■	■	■			E	●	●	●					E	●	●					2
3	Snook	C					■	■	■						E	●	●	●					E	●	●					2
4	Sheepshead	C			■	■	■								C	●							C-E			●		●		1
5	Southern Flounder	C									■	■	■	■	C-E	●			●				C-E	●		●				2
6	Florida Pompano	CS				■	■	■	■	■	■	■			C-E				●				C-E			●			●	3
7	Striped Mullet	CS	■									■	■	■	E	●	●	●					E	●	●	●				3
8	Gulf Menhaden	C	■	■	■								■	■	E	●	●	●					C-E	●		●			●	3
9	Spanish Sardine	C						■	■	■	■				E	●	●	●					C-E	●		●			●	3
10	Black Drum	C	■	■	■	■	■						■	■	E	●	●	●					E	●	●	●				1
	REEF FISHES																													
11	Red Grouper	CS			■	■	■	■							CS-C	●				●	●		CS				●	●		2
12	Jewfish	CS							■	■					CS-C	●				●	●		CS-C				●	●		2
13	Gag Grouper	CS	■	■	■	■								■	CS-C	●				●	●		CS-C				●	●		2
14	Scamp	CS			■	■									CS	●				●	●		CS				●	●		2
15	Red Snapper	CS							■	■	■	■			CS-C	●				●	●		CS-C				●	●		2
16	Mangrove Snapper	CS				■	■	■	■	■					C-E	●	●						C-E				●	●		2
	COASTAL PELAGIC FISHES																													
17	King Mackerel	OCS					■	■	■	■	■				CS							●	CS-C				●	●	●	4
18	Spanish Mackerel	CS					■	■	■	■	■				CS							●	CS-C				●	●	●	4

[1] KEY:
E — Estuarine
C — Coastal
CS — Continental Shelf
OCS — Outer Continental Shelf

[2] MIGRATION TYPE:
1 — Residentially Restricted
2 — Random Residential Range
3 — Restricted Migration
4 — Extensive Migration

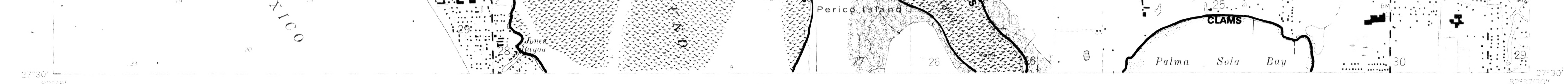
COLONIAL BIRD NESTING SITE *
Number appearing with symbol indicates colony sites. Colony sites and species - composition data are included in the narrative.

Shorebird

Wading Bird

Brown Pelican

WEST INDIAN MANATEE HABITAT



SCALE 1:24 000

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 5 0 1 KILOMETER

THE TAMPA BAY ENVIRONMENTAL ATLAS WAS PRODUCED BY THE U.S. FISH AND WILDLIFE SERVICE, DIVISION OF BIOLOGICAL SERVICES NATIONAL COASTAL ECOSYSTEMS TEAM (FWS/OBS) FOR COASTAL PLANNERS, DECISION MAKERS AND THE GENERAL PUBLIC, TO DETERMINE AND EVALUATE CHANGE AND TO RESOLVE CONFLICTS AMONG LAND USES, FISH AND WILDLIFE REQUIREMENTS AND THE MAINTENANCE OF ECOLOGICAL DIVERSITY. THE STUDY AREA INCLUDES A MAJOR PORTION OF THE COASTAL COUNTIES OF PINELLAS, HILLSBOROUGH, MANATEE, AND A SMALL PORTION OF SARASOTA. THERE IS NO ATTEMPT, IN THE DESIGN OR PRODUCTS OF THIS STUDY, TO DEFINE THE LIMITS OF PROPRIETARY JURISDICTION OF ANY FEDERAL STATE, OR LOCAL GOVERNMENT TO ESTABLISH THE GEOGRAPHICAL SCOPE OF THE REGULATORY PROGRAMS OF GOVERNMENT AGENCIES

THIS MAP HAS BEEN COMPILED FROM A VARIETY OF SOURCE MATERIALS INCLUDING MAPS, AERIAL PHOTOS, AND REPORTS. SINCE MANY SOURCES CONTAINED GENERALIZED LOCATIONS OF RESOURCES AND OTHER MAPPED FEATURES, THE USER SHOULD NOT RELY ON THESE MAPS FOR PRECISE MEASUREMENTS OF DISTANCES OR AREAS.

PRIMARY SOURCES OF MAPPED INFORMATION:

SHELLFISH HARVEST AREAS: Shellfish Harvest Area Maps, Dept. of Natural Resources, 1982.

PUBLIC & PRIVATE OYSTER BEDS: Cooperative Gulf of Mexico Estuarine Inventory and Study, Florida, McNulty, Lindall and Sykes, 1972.

CLAMS: Personal Communication, Discussion of Distribution Clams in Tampa Bay and Adjacent Brackish Waters, Mr. L. Tracy Three T's Clam Company, 1983. Mike Sprague, Draft Maps, Department of Natural Resources, 1984

SCALLOP BEDS: Personal Communication, Mr. Bill Lyons Dept. of Natural Resources, Marine Research Laboratory, 1982

FINFISH SPAWNING, NURSERY & HARVEST AREAS: Florida's Fishing Grounds, Moe, 1970.

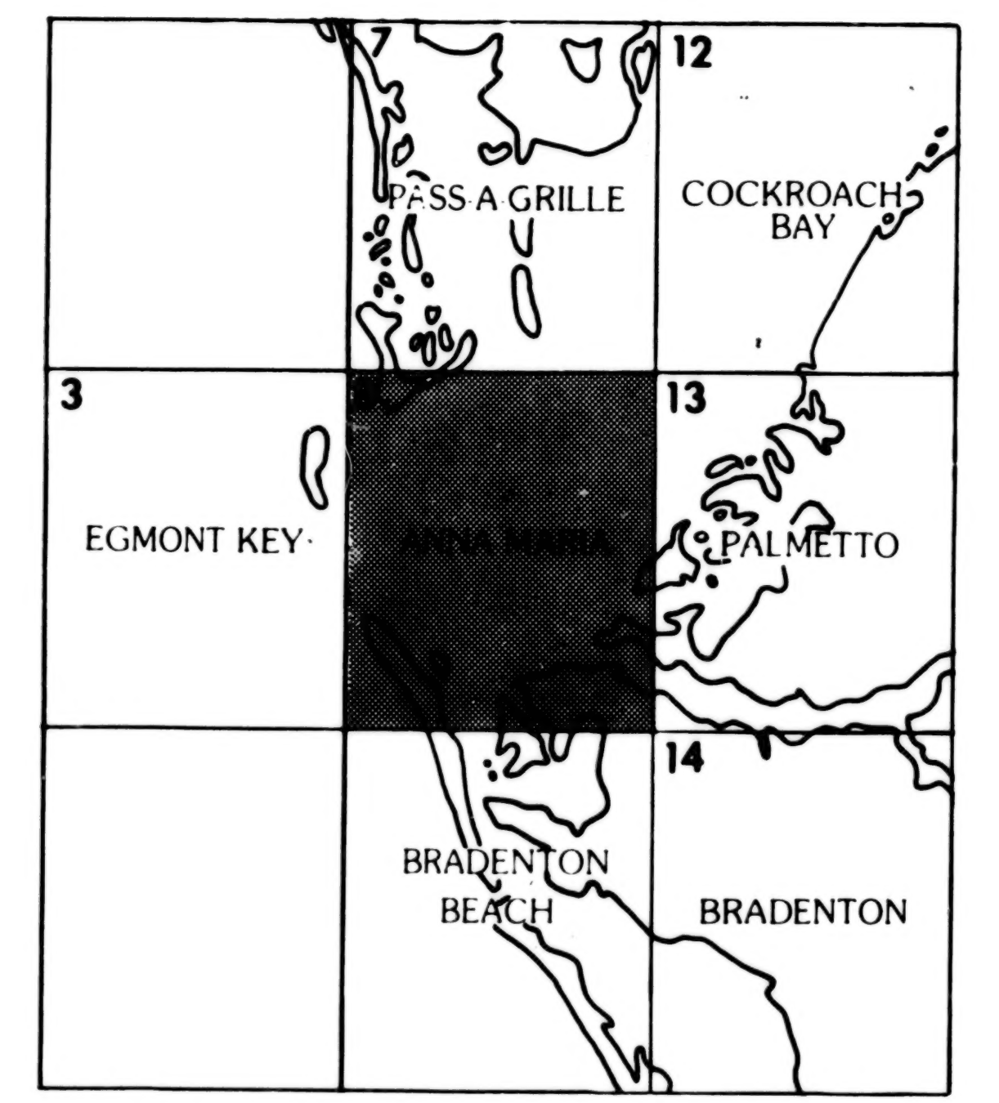
BIRD NESTING SITES: Florida Atlas of Breeding Sites for Herons and Their Allies: 1976-78, Nesbitt, S.A., Ogden, J.C., Kale II, H.W., et.al. U.S. Fish and Wildlife Service, 1982. Personal Communication, Maps and Data, Dr. H.W. Kale II, Florida Audubon Society, 1982

MANATEE HABITAT: Boaters guide to Manatees, the gentle giants, Florida Marine Patrol, 1980.

SEAGRASS BEDS: Tampa Bay Seagrass Maps, 1:10,000 and 1:24,000 Scales, Mangrove Systems, Inc. 1980 National Wetlands Inventory Maps, 1:24,000 Scale, U.S. Fish and Wildlife Service, 1983.

ARTIFICAL REEFS: Computer Printout of Florida Artifical Reefs, U.S. Army Corps of Engineers, 1981. Recreational Use Reefs in Florida: Artifical and Natural, Florida Sea Grant Program, 1979.

FOR COMPLETE REFERENCE SEE MAP NARRATIVE



Shorebird

Wading Bird

Brown Pelican

WEST INDIAN MANATEE HABITAT

STATE MANATEE SANCTUARY

▨ SEAGRASS BEDS

■ ARTIFICAL REEF*
(Permitted by Florida Dept. of Environmental Regulation)
Numbers next to reefs refer to composition data in narrative

**Symbols appearing with numbers are described more fully in the narrative.*

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